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FIG. 1

TITLE: HARDWARE-BASED ACCELERATED COLOR CORRECTION
          FILTERING SYSTEM
INVENTORS: Henry M. D'Souza and Gokalp Bayramoglu
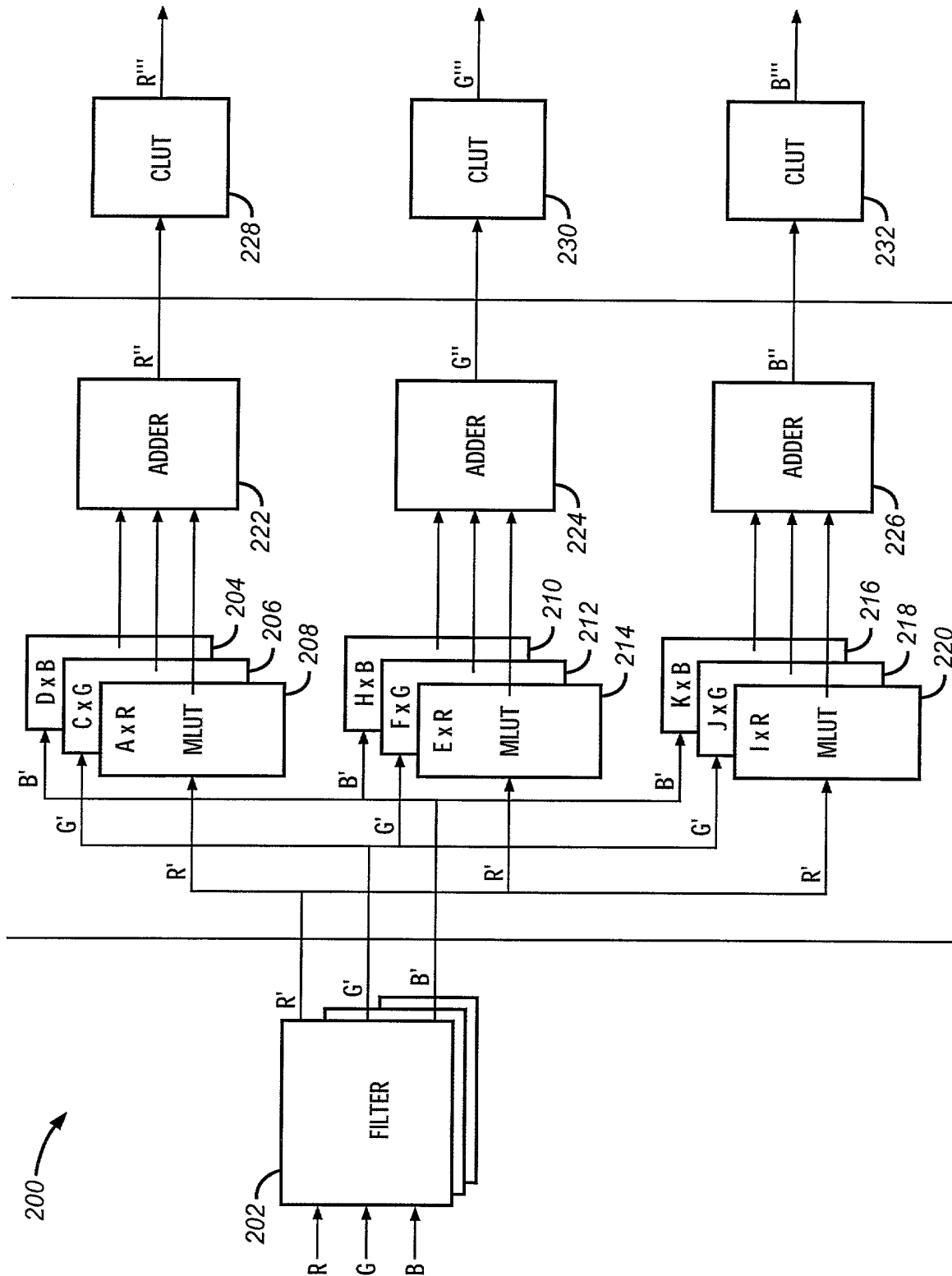SERIAL NO.: 09/893,396

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FIG. 2

$$\begin{bmatrix} R'' \\ G'' \\ B'' \end{bmatrix} = \begin{bmatrix} A & C & D \\ E & F & H \\ I & J & K \end{bmatrix} \begin{bmatrix} R' \\ G' \\ B' \end{bmatrix}$$

FIG. 3

$$R'' = (A \times R') + (C \times G') + (D \times B')$$
$$G'' = (E \times R') + (F \times G') + (H \times B')$$
$$B'' = (I \times R') + (J \times G') + (K \times B')$$

FIG. 4

TITLE: HARDWARE-BASED ACCELERATED COLOR CORRECTION
          FILTERING SYSTEM
INVENTORS: Henry M. D'Souza and Gokalp Bayramoglu
SERIAL NO.: 09/893,396

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R	0	0	0	0	0	0	0	0	0	0	50	100	150	200	250
G	50	100	150	200	250	0	0	0	0	0	0	0	0	0	0
B	0	0	0	0	0	50	100	150	200	250	0	0	0	0	0
R'	0	0	0	0	0	0	0	0	0	0	11	39	86	154	245
G'	11	39	86	154	245	0	0	0	0	0	0	0	0	0	0
B'	0	0	0	0	0	11	39	86	154	245	0	0	0	0	0
R"	2	5	11	20	31	1	2	4	7	11	12	42	94	168	267
G"	10	37	83	149	236	0	0	-1	-2	-3	0	0	1	1	1
B"	0	-1	-3	-6	-10	9	34	75	134	213	0	0	-1	-2	-3
R"'	1	22	39	62	84	1	2	18	30	43	46	91	152	201	249
G"'	42	90	141	191	240	0	0	0	0	0	0	0	0	0	0
B"'	0	0	0	0	0	30	89	134	182	230	0	0	0	0	0

502 → (R, G, B)
504 → (R', G', B')
506 → (R", G", B")
508 → (R"', G"', B"')

FIG. 5

$$\begin{bmatrix} 1.092434 & .126263 & 0.041212 \\ 0.002396 & .965119 & -0.01561 \\ -0.91221 & -0.04135 & 0.870848 \end{bmatrix}$$

FIG. 6